

### **In the Drawings**

FIGs. 1-11a are amended by adding the designation of "Prior Art" to the figure legends.

Attachments

Replacement Sheets

## **REMARKS**

The Examiner is thanked for the thorough examination of the present application. The Office Action, however, tentatively rejected all claims 1-35. In response, Applicant submits the foregoing amendments and the following remarks. In particular, Amendments have been made to specification, drawing and claims 1-3, 5, 8, 10, 12, 16, 24-26, and 35, and claims 2, 10, 24 and 26 have been cancelled. Therefore, claims 1, 3-9, 11-23, 25, and 27-35 remain pending in the present application.

Support for the amendments is found in the specification, drawings and claims as filed. Accordingly, it is respectfully submitted that the amendments do not constitute the addition of new matter. Reconsideration of the application in view of the foregoing amendments and following comments is respectfully requested.

### **Drawings**

The Office Action objected to the drawings, noting that Figures 1-11a should include the designation of "prior art." Applicant has amended the drawings accordingly. Therefore, the objection has been accommodated and should be withdrawn.

### **Specification**

The objected to the specification for a noted informality. Applicant has amended the specification to address and overcome the noted informality.

### **Claim Objection**

The Office Action objected to claim 35 for a noted informality. Applicant has amended claim 35 in accordance with the Examiner's suggestion. Accordingly, objection should be withdrawn.

### **Claim Rejection - 35 U.S.C. § 112**

The Office Action rejected claims 1-24 and 28-35 under 35 U.S.C § 112, first paragraph, alleging that the claims fail to comply with the enablement requirement. Applicant respectfully requests reconsideration of this rejection. The Office Action alleged that, since the claims reference the intensity profile of an image of a nominal human pupil, the "profile" is not sufficiently defined or described in the original disclosure.

However, as described in paragraph [0049] of the specification, "the shape of the pixel apertures is determined by the horizontal convolution of the nominal profile of the illumination spot at the pixel plane ....." Thus, persons skilled in the art would understand that the "profile" of the present application is related to the shape of the pixel apertures.

Furthermore, as described in paragraph [0109], the application describes that "FIG. 11a shows a prior art display in which a spot 500 which is the image of an observer's pupil in the nominal window plane when imaged through one lens 501 of a lenticular screen onto the pixel plane 502. The image 500 comprises a lateral intensity profile extending vertically generated by the lens element of a lenticular screen

(comprising an array of vertically extending cylindrical lenses). The relative position of the peak intensity of the spot 500 is shown by the line 503."

Therefore, the intensity profile would be understood by persons skilled in the art as an image of the light spot of the nominal human pupil in the nominal window plane formed in the pixel plane by the spatially multiplexing parallax element.

Since the "profile" is defined or described in the original disclosure in such a way as to adequately inform one skilled in the art of the meets and bounds of the "profile," Applicant submits that such artisans could make or use the same based on what has been provided in the disclosure.

Thus, regarding to the intensity "profile" of an image of a nominal human pupil, one skilled in the art is adequately informed of the meets and bounds of the "profile" that they could make and use the same, or conversely, based on what has been provided in the disclosure. Accordingly, Applicant submits that the rejections under 35 U.S.C. § 112, first paragraph should be withdrawn.

#### **Claim Rejections - 35 U.S.C. § 112, Second Paragraph**

The Office Action rejected claims 1-24, 26, 27, and 30-35 are rejected under the second Paragraph of 35 U.S.C. §112 as allegedly being indefinite for failing to particularly point out and distinctly claims the subject matter of the invention.

Regarding claim 1, claim 1 has been amended so that the arrangement of the pixel apertures is clearly and distinctly related to the convolution, the intensity profile and the height of the apertures. Regarding claims 1 and 16, "the intensity profile" is

amended into “an intensity profile,” respectively in claims 1 and 16 for the proper antecedent basis.

Furthermore, as described in paragraph [0049] of the specification, “the shape of the pixel apertures is determined by the horizontal convolution of the nominal profile of the illumination spot at the pixel plane .....” Therefore, one skilled in the art would know that the “profile” mentioned in the present application is related to the shape of the pixel apertures.

Also, as described in paragraph [0109], the present application states: “FIG. 11a shows a prior art display in which a spot 500 which is the image of an observer’s pupil in the nominal window plane when imaged through one lens 501 of a lenticular screen onto the pixel plane 502. The image 500 comprises a lateral intensity profile extending vertically generated by the lens element of a lenticular screen (comprising an array of vertically extending cylindrical lenses). The relative position of the peak intensity of the spot 500 is shown by the line 503.”

Therefore, the intensity profile can be understood as an image of the light spot of the nominal human pupil in the nominal window plane formed in the pixel plane by the spatially multiplexing parallax element. Thus, the meets and bounds of the limitation “profile” should be discerned in which the subject matter of the claims is definite in view of the original disclosure.

Regarding claims 12 and 26, since the present application describes “The purpose of the aperture regions 550 is to provide additional luminance in the window plane when the spot is in the region of the gap 551. Thus the overall profile of the vertical height of the pixel aperture 546 is flat in a central portion and increases towards

the edges.”([0127], FIG.14, 15), thus, according to FIG.14, 15, it can tell that “the profile increases towards the opposite edges of the same pixel apertures relative to the centre of the pixel aperture.”

Regarding claim 35, “the nominal viewing plane” in the claim 35 has been amended to “the nominal window plane” which has proper antecedent basis in claim 1.

For at least the foregoing reasons, the rejections under 35 U.S.C. § 112, second paragraph should be withdrawn.

#### **Claim Rejections - 35 U.S.C. § 102(b)**

The Office Action rejected claims 1-8, 11-13, 16-22, 25-27 and 30-34 under 35 U.S.C. §102(b) as allegedly being anticipated by Woodgate (EP 0,625,861).

Before proceeding further, it is appropriate to note that MPEP 2131 advises (with emphasis added) that:

*“A claim is anticipated **only if each and every element as set forth in the claim is found**, either expressly or inherently described, in a single prior art reference.”* Verdegall Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).  
*“The identical invention must be **shown in as complete detail as is contained in the ...claim.**”* Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). (MPEP 2131)

Regarding with the rejections of claims 1 and 16, Applicant has combined claims 10 and 2 with claim 1, and claim 24 with claim 16, thus, since Woodgate fails to disclose “the pixel apertures are arranged to repeat at a pitch substantially equal to a representative width of the intensity profile, and the representative width is the width between the 5% and 95% cumulative integration points of the intensity profile.”, the amended claims 1 and 16 (as amended) overcome the application of Woodgate.

Moreover, the Office Action did not reject claim 10 or claim 24 based on prior art. Therefore, the incorporation of these claims into claims 1 and 16, the rejections of claims 1 and 16 should be withdrawn as moot.

Furthermore, regarding the rejection of claim 25, since Woodgate mentions *“Corresponding pixels in the two columns are disposed in the same row and red, blue, and green pixels 2, 3, and 4, respectively are arranged as composite pixels. The columns are separated by a gap 50”*(C5, L25-31), the pixel unilaterally extended in FIG.12 of Woodgate fails to disclose the claimed feature of: *“the total height of the pixel apertures parallel to the columns of pixels has a profile which increases towards the opposite edges of the same pixel aperture relative to the centre of the pixel aperture.”*. Thus, the amended independent claim 25 should be deemed new and NOT anticipated by Woodgate.

Clearly, the features in claims 1, 16, and 25 are different than the teachings of Woodgate. Accordingly, Applicant respectfully submits that independent claims 1, 16 and 25 are allowable over the art of record, and respectfully requests the 35 U.S.C. §102(b) rejection of claims 1, 16 and 25 to be reconsidered and withdrawn. For at least the same reasons, the rejections of dependent claims 3-9, 11-15, 17-23, and 27-35 should be withdrawn for the same reasons.

### **Conclusions**

For all of the above reasons, applicant submits that the specification and claims are now in proper form, and that the claims define a new and unobvious invention in

view of the prior art. Therefore, applicant respectfully requests issuance for the present application.

In view of the foregoing comments, it is respectfully submitted that the present application is now in proper condition for allowance. If the Examiner believes there are any further matters that need to be discussed in order to expedite the prosecution of the present application, the Examiner is invited to contact the undersigned.

No fee is believed to be due in connection with this submission. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to Deposit Account No. 20-0778.

Respectfully submitted,

/Daniel R. McClure/

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**Daniel R. McClure, Reg. No. 38,962**

**THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.**

Suite 1500

600 Galleria Parkway S.E.

Atlanta, Georgia 30339

(770) 933-9500